Practice Exercise 1

- Write a program in Python to print out the number of seconds in a 30-day month.
- Write a program in Python to print out the number of seconds in a year. 2.
- Use Python as a calculator. The operations are just the same as what we are used to in 3. mathematics.
- A high-speed train can travel at an average speed of 150 mph. How long will it take a train travelling at this speed to travel from London to Glasgow which is 414 miles away? Give your answer in minutes.



- Using the help facility on Python. Type help() to start the online facility, then "keywords" to view the keywords that are available in Python. Get help on the "if" keyword.
- Use the interpreter to execute the following:
 - a. 49/7
 - b. 8**2
 - c. 20%3
 - d. 17//3
 - e. 7**3
- Use Python to evaluate the following:
 - a. If you are going on holiday to France how many Euros would you get when you convert £500 at an exchange rate of £1 = €1.20.



b. On return from your holiday, you now have €320. How many GBP would you receive €5 at an exchange rate of £1 = €1.32. Use Python to calculate this.

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The volume of a sphere is given by $V=\frac{4}{3}\pi r^3$. Use Python to find the volume of a sphere with a radius of 10 cm.



- 9. Insert brackets in the expression 36/9-2 to get:
 - a. 2
 - b. 5.12



Practice Exercise 2

Write a program that assigns the variables length and width as 18 and 7 respectively. Use the variables to calculate the perimeter and area of the rectangle.

Hint: Perimeter = 2I + 2w and Area = I × w



- Write a Python program that defines a variable called days_in_school each year and assign 192 to the variable. The program should then print out the total hours that you spend in school from Year 7 to Year 11, assuming that each day you spend 6 hours in school.
- What value will be printed on the screen?

```
marks = 25
marks = marks + 10
print (marks)
```



Given the code below, what value will be printed to the screen?

> time spent = 34 # in minutes # after one minutes time spent = time spent +1 print(time spent)

Hint: We use # to include comments in our code. Comments are ignored by the interpreter; they are meaningless for the interpreter but give more information to us humans. This is particularly important for maintaining the code at a later date.

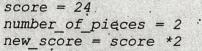
Which of the values below would be printed on the screen from the code snippet?



- a. 5040
- b. 210
- c. 720
- d. Error

hours in a week = hours in a day * 7 hours in a month = hours in a week * 30 # assuming we have 30 days in a month print (hours in a month)

6. What is the value of score after running the following code?





True or false? An expression can be assigned to a variable. 7. a.



What is the value of y after running the code?

$$x, y = 23, 45$$

 $y, x = x, y$



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